IN THE CLAIMS:

Please add new Claims 64-72, cancel Claims 19-25 and amend Claims 1, 12, 26-30, 40, 50, 51, 61-63 as follows. A copy of amended Claims 1, 12, 26-30, 40, 50, 51, 61-63 8 showing the additions and deletions in accordance with 37 C.F.R. §1.121(c)(1)(ii) is attached hereto.

B1

1. (twice amended) A method for identifying an inhibitor of bitter taste comprising (i) contacting a taste receptor with a G-protein, selected from the group consisting of transducin and gustducin, and a bitter tastant, under conditions suitable for activation of the G-protein by the bitter tastant, and measuring the level of G-protein activation; (ii) in a separate experiment, contacting a taste receptor with a G-protein selected from the group consisting of transducin and gustducin, the bitter tastant, and a test inhibitor under conditions suitable for activation of the G-protein by the bitter tastant, and measuring the level of G-protein activation, where the G-protein is the same as that used in part (i), and where the test inhibitor is adenosine monophosphate or a structural homolog of adenosine monophosphate; and then (iii) comparing the level of activation of the G-protein measured in part (i) with the level of activation of the G-protein measured in part (ii), wherein a lower level of activated G-protein in the presence of the test inhibitor has a positive correlation with an ability of the test inhibitor to inhibit the perception of a bitter taste associated with the tastant.

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12. (twice amended) A method for identifying an inhibitor of bitter taste comprising (i) contacting, *in vitro*, a taste receptor with a solution comprising a G-protein selected from the group consisting of transducin and gustducin, and a bitter tastant, under conditions suitable for activation of the G-protein by the bitter tastant, and measuring the level of G-protein activation; (ii) in a separate experiment, contacting a taste receptor with a solution comprising a G-protein selected from the group consisting of transducin and gustducin, the bitter tastant, and a test inhibitor, and measuring the level of G-protein activation, where the G-protein is the same as that used in part (i), and where the test inhibitor is adenosine monophosphate or a structural homolog of adenosine monophosphate; and then (iii) comparing the level of

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activation of the G-protein measured in part (i) with the level of activation of the G-protein measured in part (ii), wherein a lower level of activated G-protein in the presence of the test inhibitor has a positive correlation with an ability of the test inhibitor to inhibit the perception of a bitter taste associated with the tastant.

26. (twice amended) A method for identifying an inhibitor of bitter taste *in vivo* comprising (i) contacting a taste receptor with a G-protein, selected from the group consisting of transducin and gustducin, and a bitter tastant, under conditions suitable for activation of the G-protein by the bitter tastant, and measuring the level of G-protein activation; (ii) in a separate experiment, contacting a taste receptor with a G-protein selected from the group consisting of transducin and gustducin, the bitter tastant, and a test inhibitor, and measuring the level of G-protein activation, where the G-protein is the same as that used in part (i), and where the test inhibitor is adenosine monophosphate or a structural homolog of adenosine monophosphate; and then (iii) comparing the level of activation of the G-protein measured in part (i) with the level of activation of the G-protein measured in part (ii), wherein a lower level of activated G-protein in the presence of the test inhibitor has a positive correlation with an ability of the test inhibitor to inhibit the perception of a bitter taste associated with the tastant.

27. (amended) The method of claim 26, wherein identifying said inhibitors of bitter taste *in vivo* comprising (i) offering a test animal the choice of consuming either (a) a composition comprising a bitter tastant or (b) the composition comprising the bitter tastant as well as said bitter taste inhibitor; and (ii) comparing the amount of consumption of the composition according to (a) or (b), wherein greater consumption of the composition according to (b) has a positive correlation with an ability of said bitter taste inhibitor to inhibit the perception of bitter taste associated with the tastant.

28. (amended) The method of claim 26, where said bitter taste inhibitor was found to inhibit activation of a G-protein by the bitter tastant.

29. (amended) The method of claim 27, where said bitter taste inhibitor elicits the perception of a sweet taste.

continue B4

32 30. (amended) A method of inhibiting a bitter taste resulting from contacting a taste tissue of a subject with a bitter tastant, comprising administering to the subject an effective amount of a bitterness inhibitor, wherein said bitterness inhibitor is adenosine monophosphate or a structural homolog of adenosine monophosphate.

33 40. (amended) A method of inhibiting s bitter taste of a composition, comprising incorporating, in the composition, an effective amount of a bitterness inhibitor, wherein said bitterness inhibitor is adenosine monophosphate or a structural homolog of adenosine monophosphate. B5

43 50. (amended) The method of claim 11, further comprising administering to the subject, a composition comprising said bitterness inhibitor that acts as a bitterness inhibitor in addition to eliciting a sweet taste. B6

44 51 (amended) The composition of claim 43, comprising a bitter tastant and one or more of said bitterness inhibitors is present at a concentration which inhibits bitter taste perception.

54 61. (amended) The composition of claim 43, comprising a bitter tastant and one or more of said bitterness inhibitors, is present at a concentration which inhibits bitter taste perception and which elicits the perception of a sweet taste. B7

55 62. (amended) The composition of claim 43, wherein one or more of said bitterness inhibitor, is present at a concentration which elicits the perception of a sweet taste.

57 63. (twice amended) A method for identifying a bitter tastant comprising (i) contacting a taste receptor with a G-protein, selected from the group consisting of transducin and gustducin, and a test tastant, and measuring the level of G-protein activation; (ii) in a separate experiment, contacting a taste receptor with a G-protein selected from the group consisting of transducin and gustducin, the test tastant, and a bitterness inhibitor, wherein said bitterness inhibitor is adenosine monophosphate or a structural homolog of adenosine monophosphate, and measuring the level of G-protein activation, where the G-protein is the same as that used in part (i), and then B8

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(iii) comparing the level of activation of the G-protein measured in part (i) with the level of activation of the G-protein measured in part (ii), wherein a lower level of activated G-protein in the presence of said bitterness inhibitor has a positive correlation with an ability of the test tastant to elicit the perception of a bitter taste.

64. (new) The method of claim 1, wherein the bitterness inhibitor is adenosine 5' monophosphate.

65. (new) The method of claim 1, wherein the bitterness inhibitor is thymidine 5' monophosphate.

66. (new) The method of claim 1, wherein the bitterness inhibitor is adenosine 5' diphosphate.

67. (new) The method of claim 1, wherein the bitterness inhibitor is adenosine 3' monophosphate.

68. (new) The method of claim 1, wherein the bitterness inhibitor is adenosine 5'-succinate.

69. (new) The method of claim 1, wherein the bitterness inhibitor is adenosine 5'-triphosphate.

70. (new) The method of claim 1, wherein the bitterness inhibitor is adenosine 2'-monophosphate.

71. (new) The method of claim 1, wherein the bitterness inhibitor is 5'-cytidylic acid.

72. (new) The method of claim 1, wherein the bitterness inhibitor is inosinic acid.